

## ABSTRACT

Disclosed are nucleotide coding sequences and polypeptide sequences for synaptic activation binding proteins that are characterized by induction in the central nervous system following neuronal activity in rat hippocampus. Such proteins are identified by (i) substantial homology at the nucleotide or protein sequence level to specifically defined rat, human or mouse coding sequences or proteins, (ii) ability to bind to and affect the activity of effector proteins in the CNS, such as metabotropic glutamate receptors, (iii) binding specificity for a particular binding sequence, and (iv) presence in the sequence of a PDZ-like domain. Nucleotides and polypeptides of the invention are useful in screening and diagnostic assays.